

WASHINGTON STATE DEPARTMENT OF ECOLOGY
POST OFFICE BOX 47600
OLYMPIA, WASHINGTON 98504-7600

IN THE MATTER OF

|

Sierra Pacific Industries
301 Hagara Street
Aberdeen, Washington 98520
Sierra Pacific Industries
PO Box 496028
Redding, California 96049

|

NO. PSD-02-02

|

FINAL APPROVAL

|

OF PSD APPLICATION

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Pursuant to the United States Environmental Protection Agency (EPA) regulations for the Prevention of Significant Deterioration (PSD) set forth in Title 40, Code of Federal Regulations, Part 52, regulations set forth in the Washington Administrative Code 173-400-141, based upon the complete Prevention of Significant Deterioration (PSD) Permit Application submitted by Sierra Pacific Industries (SPI) on April 8, 2002, and the technical analysis performed by the Department of Ecology (Ecology), Ecology now finds the following:

FINDINGS:

1. SPI proposes to install a wood-waste-fired boiler and 20 megawatt (MW) steam turbine to operate in conjunction with the SPI lumber mill located 2.5 kilometers (km) due east of the Aberdeen, Washington city limits, directly east across the river from South Aberdeen, Washington, and about 100 meters west of the community of Junction City.
2. SPI is located within a Class II area that is currently designated in attainment or unclassified for all national and state air quality standards (NAAQS).
3. The site is 55 km from the nearest Class I Area, Olympic National Park, and beyond 100 km, but within 270 km of eight other Class I areas (Alpine Lakes Wilderness, Glacier Peak Wilderness, Goat Rocks Wilderness, Mt. Adams Wilderness, Mt. Hood Wilderness, Mt. Rainier National Park, North Cascades National Park and Pasayten Wilderness).
4. The site is more than 100 km from the U.S. - Canadian border, and is not subject to the United States - Canada, or State of Washington - Canada agreements of 1991 and 1992/94, respectively.
5. This project consists of:
 - 5.1 Installing one wood-waste-fired boiler with a capacity of about 310 million British thermal units per hour (MMBtu/hr) heat input, and
 - 5.2 Installing a steam-driven electricity-generating turbine with an output capacity of 20 megawatt (MW).
6. This project is subject to New Source Performance Standards (NSPS): 40 CFR Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units).

- 33 7. The emissions of all air pollutants from the proposed modification are subject to review
34 under Chapter 173-400 WAC, Chapter 173-460 WAC and the regulations of the Olympic
35 Regional Clean Air Authority (ORCAA 2940 Limited Lane NW, Olympia, WA 98502).
36 Chapter 173-400 WAC includes provision for PSD review (WAC 173-400-141). This permit
37 considers only PSD applicable issues. All other air quality related Notice of Construction
38 approval issues are subject to the ORCAA authority.
- 39 8. SPI will have the potential to emit more than 250 tons per year (TPY) of any one pollutant
40 that is subject to the federal Clean Air Act. This qualifies SPI as a major stationary source as
41 defined in federal regulations 40 CFR Part 52.21(b)(1)(i)(b).
- 42 9. As a result of this project, SPI's net increases in potential to emit pollutants subject to PSD
43 review and greater than the respective PSD significant emission rates (SER) will be:
- 44 9.1 135 TPY for nitrogen oxides (NO_x): The SER for NO_x is 40 TPY.
45 9.2 475 TPY for carbon monoxide (CO): The SER for CO is 100 TPY.
46 9.3 27 TPY of particulate matter (PM), all assumed to be under 10 microns in diameter
47 (PM₁₀): The SERs for PM and PM₁₀ are 25 TPY and 15 TPY, respectively.
- 48 10. Because SPI will be a major stationary source, will have net emissions increases for NO_x,
49 CO, and PM/PM₁₀ in excess of each respective PSD SER, and intends to locate in an area
50 that is in attainment/unclassified for the NAAQS for NO_x, CO and PM/PM₁₀. The project
51 qualifies as a major new source under federal regulations [40 CFR 52.21(b)(1)(i)(b), 40 CFR
52 52.21(b)(3)(i)(a) and 40 CFR 52.21(b)(23)(i)]. As a result, the project is subject to PSD
53 review.
- 54 11. Other than NO_x, CO and PM/PM₁₀, SPI's net emissions increases of all pollutants subject to
55 regulation under the federal Clean Air Act are below the significance levels specified in 40
56 CFR 52.21(b)(23)(i). As a result, they are not subject to inclusion in this PSD permit.
- 57 12. SPI submitted the PSD permit application on April 9, 2002. On May 8, 2002, Ecology
58 notified SPI that the permit application was determined to be complete. On July 22, 2002,
59 Ecology released the draft permit for public review and comment. On October 9, 2002,
60 Ecology held a hearing on the proposed permit. Ecology has determined that no comments
61 received during the review period or at the hearing justify a change to the approval
62 conditions of the draft permit.
- 63 13. Best Available Control Technology (BACT) determinations:
- 64 13.1 For NO_x emissions:
- 65 13.1.1 Use of a spreader stoker boiler design.
66 13.1.2 Selective noncatalytic reduction (SNCR).
67 13.1.3 A short-term (24 hour average) limit of 0.15 pounds NO_x per million British
68 thermal units (lb NO_x/MMBtu) and a limit for any twelve consecutive month
69 period equivalent to not greater than 0.1 lb NO_x/MMBtu on an 8,760 hrs/yr
70 basis (135 TPY).

71 13.2 For CO emissions:

72 13.2.1 Good combustion practice, and

73 13.2.2 An emission limit of 0.35 pounds CO per million British thermal units (lb
74 CO/MMBtu) on an hourly average basis.

75 13.3 For PM₁₀ emissions:

76 13.3.1 Use of an dry electrostatic precipitator (ESP), and

77 13.3.2 An emission limit of 0.02 pounds PM₁₀ per million British thermal units (lb
78 PM₁₀/MMBtu) on a 24 hour average basis. This converts to 0.01 grains per dry
79 standard cubic foot of combustion exhaust gas.

80 14. Allowable emissions will not cause or contribute to air pollution in violation of:

81 14.1 Any NAAQS.

82 14.2 NAAQS and PSD increment consumption:

83

Pollutant	Modeled Increment Consumption, Class I area, micrograms per cubic meter (μgrams/m³)	Class I area Allowable Increment Consumption, μgrams/m³	Modeled Increment Consumption, Class II area, μgrams/m³	Class II area Allowable Increment Consumption, μgrams/m³	Modeled Ambient Concentration, including background, μgrams/m³	NAAQS, μgrams/m³
NO ₂ , annual average	0.004 All NO _x as NO ₂	2.5	4.1	25	17.9	100
CO, 1 hour average	Not applicable (N/A)	N/A	401	N/A	N/A	10,000
CO, 8 hour average	N/A	N/A	228	N/A	N/A	35,000
PM ₁₀ , 24 hour average	0.036	10	29.5	30	104	150
PM ₁₀ , annual average	0.002	5	11.7	17	12.1	50

84

15. Allowable emissions will not cause a significant visibility impact in:
- 15.1 The surrounding Class I areas: The highest modeled impact was a 2.2% degradation which occurred in Olympic National Park in mid-autumn. Federal land manager guidance considers this to be below the "concern" threshold.
 - 15.2 Nearby Class II wilderness and scenic areas: The highest modeled impact was a 1.2% degradation in the Columbia River Gorge National Scenic Area in mid-spring. Federal land manager guidance considers this to be below the "concern" threshold.
16. Ambient impact analysis indicates that there will be no significant pollutant deposition on soils and vegetation in the Class I or Class II areas.
- 16.1 Modeled emissions ambient impact levels are substantially below all secondary NAAQS. This indicates a low likelihood of negative impact on Class II area flora and fauna. No sensitive species have been identified.
 - 16.2 The highest modeled nitrogen deposition in the surrounding Class I areas is 0.0025 kilograms per hectare per year. This is less than 50% of the "concern" threshold in federal land manager guidance.
17. No significant effect on industrial, commercial or residential growth in the Aberdeen, Washington area is anticipated as a result of this project.
18. Ecology finds that all requirements for PSD have been satisfied. Approval of the PSD application is granted subject to the following conditions.

APPROVAL CONDITIONS:

- 1. The wood-waste-fired boiler may burn natural gas in the wood-waste-fired boiler:
 - 1.1 To ignite the wood-waste fuel, and
 - 1.2 To maintain good combustion.
 - 1.3 SPI shall maintain records of the times and quantity of natural gas used in the wood-waste-fired boiler in accordance with Condition 7.4.
- 2. NO_x emissions from the wood-waste-fired boiler exhaust stack:
 - 2.1 Are limited to not greater than 0.15 lb NO_x/MMBtu on a 24 hour average basis based on heat input value of the fuel.
 - 2.2 Are limited in any twelve consecutive month period:
 - 2.2.1 To not greater than 135 tons NO_x emissions.
 - 2.2.2 An average of 0.10 lb NO_x/MMBtu based on heat input value of the fuel.

2.3 SPI will demonstrate initial compliance with Condition 2.1:

2.3.1 Within 60 days of achieving the maximum firing rate at which the wood-waste-fired boiler will be operated, but not later than 180 days after initial startup, SPI will conduct a compliance test.

2.3.2 The compliance test will use a continuous emission monitoring system (CEMS) that measures and records NO_x emissions from the wood-waste-fired boiler exhaust stack.

2.3.3 The CEMS will meet the requirements of Condition 5.1.

2.3.4 For the compliance test, NO_x emissions from the waste-wood-fired boiler are continuously monitored.

2.3.4.1 For not less than 24 consecutive boiler operating hours.

2.3.4.2 At an average firing rate of not less than 90 percent of rated capacity.

2.3.5 Compliance will be determined from the arithmetic mean of the NO_x emissions data in lb NO_x/MMBtu monitored pursuant to Condition 2.3.4, using a continuous 24 hour period of the compliance test.

2.3.6 SPI will submit a test plan to Ecology and ORCAA for approval at least 30-days prior to initial performance testing.

2.4 SPI will demonstrate initial compliance with Condition 2.2:

2.4.1 Within 60 days of achieving the maximum firing rate at which the wood-waste-fired boiler will be operated, but not later than 180 days after initial startup, SPI will conduct a compliance test.

2.4.2 The compliance test will use a CEMS that measures and records NO_x emissions from the wood-waste-fired boiler exhaust stack.

2.4.3 The CEMS will meet the requirements of Condition 5.1.

2.4.4 For the compliance test, NO_x emissions from the waste-wood-fired boiler are continuously monitored for 30 successive boiler operating days.

2.4.5 Initial compliance will be determined from the arithmetic mean of the NO_x emissions data monitored pursuant to Condition 2.4.4.

2.4.5.1 Mass emission rates will be determined using the appropriate procedures outlined in 40 CFR part 60 Appendix A Method 19.

2.4.5.2 An equivalent mass emission rate calculation method may be used if approved in advance by Ecology.

2.4.6 SPI will submit a test plan to Ecology and ORCAA for approval at least 30-days prior to initial performance testing.

2.5 SPI will monitor continuing compliance with Condition 2.1:

2.5.1 Following the date the initial performance test in Condition 2.3 is completed, or is required to be complete, whichever date comes first.

- 155 2.5.2 The limit in Condition 2.1 will apply during all periods of operation of the
156 wood-waste-fired boiler.
- 157 2.5.3 Continuous compliance will be monitored by a CEMS that measures and
158 records NO_x emissions from the wood-waste-fired boiler exhaust stack.
- 159 2.5.4 The CEMS will meet the requirements of Condition 5.1.
- 160 2.5.5 Compliance will be determined from the arithmetic mean of each 24 continuous
161 hours of NO_x emissions data in lb NO_x/MMBtu monitored pursuant to
162 Condition 2.5.3.
- 163 2.6 SPI will monitor continuing compliance with Condition 2.2:
- 164 2.6.1 Following the date the initial performance test in Condition 2.4 is completed, or
165 is required to be complete, whichever date comes first.
- 166 2.6.2 Emissions during all periods of operation will be included in monitoring
167 compliance with Condition 2.2.
- 168 2.6.3 Continuous compliance will be monitored by a CEMS that measures and
169 records NO_x emissions from the wood-waste-fired boiler exhaust stack.
- 170 2.6.4 The CEMS will meet the requirements of Condition 5.1.
- 171 2.6.5 Continuous compliance will be monitored from the arithmetic mean of the NO_x
172 emissions data monitored pursuant to Condition 2.6.3.
- 173 2.6.5.1 Mass emission rates will be determined using the appropriate procedures
174 outlined in 40 CFR part 60 Appendix A Method 19.
- 175 2.6.5.2 An equivalent mass emission rate calculation method may be used if
176 approved in advance by Ecology.
- 177 3. CO emissions from the wood-waste-fired boiler exhaust stack:
- 178 3.1 CO emissions are limited to:
- 179 3.1.1 On a 1-hour average basis, except during startup or shutdown.
- 180 3.1.1.1 Not greater than 1,200 ppm_{dv} @ 12 % CO₂.
- 181 3.1.1.2 Not greater than 434 pounds per hour (lb/hr).
- 182 3.1.2 On an 8-hour average basis, including startup and shutdown.
- 183 3.1.2.1 Not greater than 600 ppm_{dv} @ 12 % CO₂.
- 184 3.1.2.2 Not greater than 217 lb/hr.
- 185 3.1.3 On a 24-hour average basis, including startup and shutdown.
- 186 3.1.3.1 Not greater than 300 ppm_{dv} @ 12 % CO₂.
- 187 3.1.3.2 Not greater than 108 lb/hr.
- 188 3.1.4 During startup or shutdown of the wood-waste-fired boiler, CO emissions are
189 limited to not greater than 1,500 ppm_{dv} @ 12 % CO₂ on a 1-hour average basis.

- 190 3.1.4.1 Startup commences from a shutdown condition when an ignition flame
191 is first applied to the waste-wood mass in the boiler, and ends when
192 stable burning is established under good combustion practice.
- 193 3.1.4.2 Shutdown commences upon cessation of feed of waste-wood to the
194 boiler, and ends when there is no longer ignited fuel in the boiler.
- 195 3.1.4.3 Neither startup nor shutdown shall exceed a 4-hour continuous
196 period.
- 197 3.2 SPI will demonstrate initial compliance with Conditions 3.1.1 and 3.1.2:
- 198 3.2.1 Within 60 days of achieving the maximum firing rate at which the wood-waste-
199 fired boiler will be operated, but not later than 180 days after initial startup, SPI
200 will have a compliance test conducted by an independent testing vendor.
- 201 3.2.2 The compliance test shall be performed after each installed CEMS has satisfied
202 all required performance demonstration requirements under 40 CFR 60.13(c).
- 203 3.2.3 The wood-waste-fired boiler is to be operated at an average firing rate of not
204 less than 90 percent of rated capacity during the compliance test.
- 205 3.2.4 Compliance will be determined by EPA Reference Method 10.
- 206 3.2.4.1 Compliance will be demonstrated from the arithmetic mean of not less
207 than three 1-hour test samples.
- 208 3.2.4.2 The non-dispersive infrared analyzer must have performance
209 specifications allowing a minimum detectable sensitivity appropriate to
210 the CO concentration limits specified in this condition.
- 211 3.2.4.3 The span and linearity calibration gas concentrations in Method 10 will
212 be appropriate to the CO concentration limits specified in this condition.
- 213 3.2.4.4 Equivalent concentration test methods may be used if approved in
214 advance by Ecology.
- 215 3.2.4.5 Mass emission rates will be determined using the appropriate procedures
216 outlined in 40 CFR part 60 Appendix A Method 19 with indicated
217 calculations modified to be applicable to CO.
- 218 3.2.4.6 An equivalent mass emission rate calculation method may be used if
219 approved in advance by Ecology.
- 220 3.2.5 SPI will submit a test plan to Ecology and ORCAA for approval at least 30 days
221 prior to initial performance testing.
- 222 3.3 SPI will demonstrate initial compliance with Conditions 3.1.3:
- 223 3.3.1 Within 60 days of achieving the maximum firing rate at which the wood-waste-
224 fired boiler will be operated, but not later than 180 days after initial startup, SPI
225 will conduct a compliance test.
- 226 3.3.2 The compliance test will use a CEMS that measures and records CO emissions
227 from the wood-waste-fired boiler exhaust stack.

- 228 3.3.3 The CEMS will meet the requirements of Condition 5.2.
- 229 3.3.4 For the compliance test for Condition 3.1.3, CO emissions from the waste-
230 wood-fired boiler are continuously monitored.
- 231 3.3.4.1 For not less than 24 consecutive boiler operating hours.
- 232 3.3.4.2 At an average firing rate of not less than 90 percent of rated capacity.
- 233 3.3.5 Initial compliance for Condition 3.1.3 will be determined from the arithmetic
234 mean of the CO emissions data monitored pursuant to Condition 3.3.4.
- 235 3.3.5.1 Mass emission rates will be determined using the appropriate procedures
236 outlined in 40 CFR part 60 Appendix A Method 19 with indicated
237 calculations modified to be applicable to CO.
- 238 3.3.5.2 An equivalent mass emission rate calculation method may be used if
239 approved in advance by Ecology.
- 240 3.3.6 SPI will submit a test plan to Ecology and ORCAA for approval at least 30 days
241 prior to initial performance testing.
- 242 3.4 SPI will monitor continuing compliance with Condition 3.1:
- 243 3.4.1 Following the date the initial performance test in Condition 3.2 is completed, or
244 is required to be complete, whichever date comes first.
- 245 3.4.2 Continuous compliance will be determined by a CEMS that measures and
246 records CO emissions from the wood-waste-fired boiler exhaust stack.
- 247 3.4.3 The CEMS will meet the requirements of Condition 5.2.
- 248 3.4.4 Compliance will be determined from the arithmetic mean of the emissions data
249 for the corresponding averaging period for each CO emission concentration
250 limit in Condition 3.1 monitored pursuant to Condition 3.4.2.
- 251 3.4.4.1 Mass emission rates will be determined using the appropriate procedures
252 outlined in 40 CFR part 60 Appendix A Method 19 with indicated
253 calculations modified to be applicable to CO.
- 254 3.4.4.2 An equivalent mass emission rate calculation method may be used if
255 approved in advance by Ecology.
- 256 4. PM/PM₁₀ emission limits from the wood-waste-fired boiler exhaust stack apply to the sum of
257 filterable and condensable fractions, all expressed as PM₁₀:
- 258 4.1 All PM shall be expressed as PM₁₀.
- 259 4.2 PM/ PM₁₀ emissions are limited to not greater than 0.02 lb PM₁₀/MMBtu on a 24-hour
260 average basis based on heat input value of the fuel.
- 261 4.3 PM/ PM₁₀ emissions are limited to not greater than 27 tons PM₁₀ in any twelve
262 consecutive month period.
- 263 4.4 SPI will demonstrate initial compliance with Condition 4.2:

4.4.1 Within 60 days of achieving the maximum firing rate at which the wood-waste-fired boiler will be operated, but not later than 180 days after initial startup, SPI will have a compliance test conducted by an independent testing vendor.

4.4.2 The compliance test shall be performed after each installed CEMS has satisfied all required performance demonstration requirements under 40 CFR 60.13(c).

4.4.3 The wood-waste-fired boiler is to be operated at an average firing rate of not less than 90 percent of rated capacity during the compliance test.

4.4.4 Compliance will be determined by EPA Reference Methods 5 and 202.

4.4.4.1 EPA Reference Method 5 will be conducted in the manner prescribed in 40 CFR 60.46b(d).

4.4.4.2 Compliance will be demonstrated from the arithmetic mean of not less than three 2-hour test samples.

4.4.4.3 The emission rate expressed in lb PM₁₀/MMBtu will be determined using the procedure described in 40 CFR 60.46b(d)(6).

4.4.5 Equivalent concentration test methods may be used if approved in advance by Ecology.

4.4.6 SPI will submit a test plan to Ecology and ORCAA for approval at least 30 days prior to initial performance testing.

4.5 SPI will demonstrate initial compliance with Condition 4.3:

4.5.1 Within 60 days of achieving the maximum firing rate at which the wood-waste-fired boiler will be operated, but not later than 180 days after initial startup, SPI will conduct a compliance test.

4.5.2 Initial compliance will be determined from the arithmetic mean of the test results from Condition 4.4, converted to TPY PM₁₀, on the basis of design capacity firing rate.

4.5.2.1 Mass emission rates will be determined using the appropriate procedures outlined in 40 CFR part 60 Appendix A Method 19.

4.5.2.2 An equivalent mass emission rate calculation method may be used if approved in advance by Ecology.

4.6 SPI will monitor continuing compliance with Condition 4.2:

4.6.1 SPI will have periodic compliance tests conducted by an independent testing vendor:

4.6.1.1 At least once every twelve months,

4.6.1.2 From the required or actual completion date of the initial performance test in Condition 4.4, whichever date comes first.

- 299 4.6.2 If more than one source test for PM₁₀ is run in a 12-month period, at least one
300 source test is to coincide with the Relative Accuracy Test Audit required for
301 each installed CEMS.
- 302 4.6.3 Compliance will be determined by EPA Reference Methods 5 and 202.
- 303 4.6.3.1 EPA Reference Method 5 will be conducted in the manner prescribed in
304 40 CFR 60.46b(d).
- 305 4.6.3.2 Compliance will be demonstrated from the arithmetic mean of not less
306 than three 2-hour test samples.
- 307 4.6.3.3 The emission rate expressed in lb PM₁₀/MMBtu will be determined
308 using the procedure described in 40 CFR 60.46b(d)(6).
- 309 4.6.4 Equivalent concentration test methods may be used if approved in advance by
310 Ecology.
- 311 4.6.5 SPI will notify Ecology and ORCAA at least 30 days prior to the scheduled
312 performance testing.
- 313 4.7 SPI will monitor continuing compliance with Condition 4.3.
- 314 4.7.1 Following the date the initial performance test in Condition 4.4 is completed, or
315 is required to be complete, whichever date comes first.
- 316 4.7.2 Compliance will be monitored from the arithmetic mean of the test results from
317 Condition 4.6 in TPY PM₁₀ based on monthly average firing rates.
- 318 4.7.2.1 Mass emission rates will be determined using the appropriate procedures
319 outlined in 40 CFR Part 60 Appendix A Method 19.
- 320 4.7.2.2 An equivalent mass emission rate calculation method may be used if
321 approved in advance by Ecology.
- 322 5. Continuous Emission Monitoring Systems:
- 323 5.1 Installation, calibration, maintenance and operation of the CEMS for NO_x compliance
324 will satisfy the requirements contained in 40 CFR 60.48b(b) through 40 CFR 60.48b(f).
- 325 5.2 CEMS for CO will satisfy the requirements contained in 40 CFR, Part 60, Appendix B,
326 Performance Specification 4 and 40 CFR, Part 60, Appendix F, Quality Assurance
327 Procedures.
- 328 5.3 The Relative Accuracy Test Audit required for each installed CEMS will be scheduled
329 to occur during simultaneous test periods.
- 330 6. SPI will provide safe access and sampling ports for source testing of the waste-wood-fired
331 boiler exhaust stack after the final pollution control device:
- 332 6.1 Safe access will consist of permanently constructed platforms on the stacks.
- 333 6.2 The sampling ports will meet the requirements of 40 CFR, Part 60, Appendix A.
334 Method 1.
- 335 6.3 Other arrangements may be acceptable if approved by Ecology prior to installation.

7. SPI will notify and report to Ecology and ORCAA, and maintain related records as follows:

7.1 Notifications and reports will be in written format, or electronic, if approved by Ecology.

7.2 The following notifications shall be submitted to Ecology and ORCAA:

7.2.1 Commencement of construction of the wood-waste-fired boiler: In accordance with 40 CFR 60.7(a)(1), no later than 30 calendar days after such date.

7.2.2 Initial startup of the wood-waste-fired boiler: In accordance with 40 CFR 60.7(a)(3), no later than 15 calendar days after such date.

7.2.3 Completion of the entry into the operation and maintenance manual of the items specified in Condition 8, within fifteen days after such entries were completed.

7.2.4 At the time of submittal of the notification required in Condition 7.2.3, certification by the responsible party for the facility that the relevant equipment was installed consistent with the parameters developed pursuant to Condition 8.

7.2.5 The date on which the NO_x CEMS first demonstrated satisfactory performance pursuant to Condition 5.1, no later than 30 calendar days after such date.

7.2.6 The date on which the CO CEMS first demonstrated satisfactory performance pursuant to Condition 5.2, no later than 30 calendar days after such date.

7.3 The following reports shall be submitted to Ecology and ORCAA:

7.3.1 Report results of all initial compliance demonstration source tests on the wood-waste-fired boiler exhaust stack pursuant to Conditions 2.3, 2.4, 3.2, 3.3, 4.4 and 4.5 no later than 45 calendar days after completion of each respective source test.

7.3.2 Continuing performance monitoring reports required under Condition 7.3.3 shall be submitted for each calendar quarter:

7.3.2.1 Beginning with the quarter that includes the initial startup of the wood-waste-fired boiler.

7.3.2.2 Postmarked not later than one calendar month after the close of each respective calendar quarter.

7.3.2.3 In the report format approved by Ecology.

7.3.2.4 Another reporting schedule may be used if approved by Ecology.

7.3.3 Continuing performance monitoring reports will include, but not necessarily limited to, the following:

7.3.3.1 Certification by the responsible party for the facility that the relevant equipment was operated and maintained in accordance with the operational parameters and practices developed pursuant to Condition 8.

7.3.3.2 Emissions from the wood-waste-fired boiler exhaust stack:

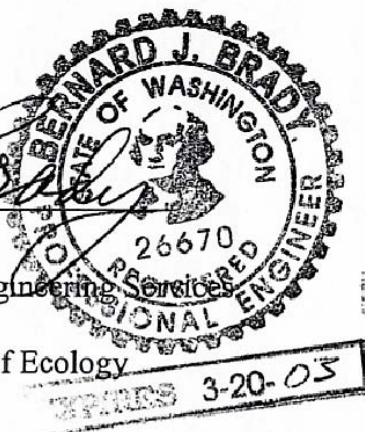
- 372 7.3.3.2.1 Pursuant to compliance under Condition 2.1, NO_x
373 emissions (lb/MMBtu) since the last report.
- 374 7.3.3.2.2 Pursuant to compliance under Condition 2.2, the total NO_x
375 mass emissions for the twelve immediately preceding
376 months ending with each month included in the report.
- 377 7.3.3.2.3 Pursuant to compliance under Condition 3.1, CO
378 concentrations and mass emission rates since the last
379 report.
- 380 7.3.3.2.4 Pursuant to compliance under Condition 4.2, results of any
381 required source tests for PM₁₀ since the last report.
- 382 7.3.3.2.5 Pursuant to compliance under Condition 4.3, the total PM₁₀
383 mass emissions for the twelve immediately preceding
384 months ending with each month included in the report.
- 385 7.3.3.3 The duration and nature of any CEMS down-time excluding zero and
386 span checks.
- 387 7.3.3.4 Results of any CEMS audits or accuracy checks.
- 388 7.3.4 Each occurrence of NO_x monitored emissions (Conditions 2.1 and 2.2),
389 CO monitored emissions (Condition 3.1) or PM₁₀ emissions (Conditions 4.2 and
390 4.3) measured in excess of the limits shall be reported in writing to Ecology and
391 ORCAA after the respective exceedance in accordance with WAC 173-400-
392 107(3) Such reports shall, as a minimum, include:
- 393 7.3.4.1 The time of the occurrence.
- 394 7.3.4.2 Magnitude of excess from the emission limit.
- 395 7.3.4.3 The duration of the excess.
- 396 7.3.4.4 The probable cause.
- 397 7.3.4.5 Corrective actions taken or planned.
- 398 7.3.4.6 Any other agency contacted.
- 399 7.4 SPI will maintain monitoring, source test, CEM audit tests and process records:
- 400 7.4.1 At the Aberdeen facility.
- 401 7.4.2 For at least five years.
- 402 7.4.3 Monitoring and process records that include time and duration of startups and
403 shutdowns of the waste-wood-fired boiler.
- 404 7.4.4 Records of the times and quantity of natural gas used in the wood-waste-fired
405 boiler.
- 406 7.4.5 SPI will provide Ecology and ORCAA with the monitoring and process records
407 for any period within the five year archive within ten working days of request.
- 408 8. Operation and maintenance (O&M) manual for the facility:

- 8.1 Within 90 days of startup, SPI will identify operational parameters and practices for the waste-wood-fired boiler.
- 8.2 The operational parameters and practices will constitute proper operation relative to compliance with the emission limitation conditions of this permit.
- 8.3 SPI will include these operational parameters and practices in the waste-wood-fired boiler O&M manual. As a minimum, and to the extent they relate to the emission limitations specified in the conditions of this PSD permit, these will include:
- 8.3.1 Inspection and maintenance procedures and schedule.
- 8.3.2 Prescribed acceptable ranges for operation based on manufacturer recommendations.
- 8.3.3 Section specifying maintenance and calibration of all required monitors used to assure compliance with the terms and conditions of this PSD permit.
- 8.4 SPI will keep the operational parameters and practices in the waste-wood-fired boiler O&M manual up-to-date to reflect any modifications of the equipment or its operating procedures.
- 8.5 SPI will keep the waste-wood-fired boiler O&M manual readily available at the facility for review by state, federal and local agencies.
- 8.6 Within thirty days of request from Ecology, SPI shall submit the O&M manual to Ecology for approval.
9. Nothing in this determination will be construed so as to relieve SPI of its obligations under any state, local, or federal laws or regulations.
10. Subject to RCW 70.94.200, SPI will permit the Environmental Protection Agency, state and local regulatory personnel access to the source upon request for the purposes of compliance assurance inspections.
11. This approval will become invalid if construction of the project is not commenced within eighteen (18) months after receipt of the final approval, or if construction of the facility is discontinued for a period of eighteen (18) months. SPI may extend the 18-month period upon satisfactorily showing that an extension is justified, pursuant to 40 C.F.R. 52.21(r)(2) and applicable EPA guidance.

Reviewed by:

Bernard Brady

Bernard Brady, P.E.
Technical, Information, and Engineering Services
Air Quality Program
Washington State Department of Ecology



DATE: 10-17-02

Draft PSD Permit
Sierra Pacific Industries
Aberdeen, WA
PSD-02-02

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448 **Approved by:**

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Mary E. Burg

DATE: 17 October 2002

452 Mary E. Burg

453 Program Manager, Air Quality Program

454 Washington State Department of Ecology

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